Gallatin Example Discussion Document

Initial Goal: Identify Barriers to Water Bank Mitigation in the Gallatin - Barriers Identified:

1) Non-use periods on water rights for mitigation
2) Ditch Companies – fear of full historic use analysis, but partial analysis would be more acceptable to ditch companies
3) Hydrologic Complexity - Multitude of sources (and ditches) in valley that can be affected
4) Wastewater Treatment Methods and Water Rights and Effect on Hydrology
5) Flexibility in location mitigation requirement would allow marketing for mitigation zones (MMZs) of valley
6) Efficiency/time resources in administratively getting through water rights process, e.g., allowance of MMZs and other possible streamlining with above considerations
7) Mitigating year-round instream fisheries WRs.
8) Lack of surface storage and year-round use WRs to mitigate year-round depletions
9) Adverse effect equaling any modeled depletion of source without accounting for model precision/error.
10) No comprehensive reporting and record keeping system for diversion measurements and lack of enforcement.
11) Lack of adequate measurement structures on streams/ditches.
12) Maintaining return flow patterns.
13) Paper water being treated as wet water for legal/physical availability analyses.

Discussion Topics

1) Pilot: delineation of Zones of Mitigation Effectiveness (hydrologic boundaries)
    a. Aspects that would not change/currently consistent with statewide practices
        i. Consumptive use (by purpose) volume would be fully mitigated
        ii. Application process with public notice would be followed
    b. Options for additional flexibility
        i. Service area flexibility/zones (pilot project potential) – transferrable to other areas, if project deemed successful.
        ii. Partial Ditch Company Changes allowed without full Historic Use Evaluation? (permit/change processing question)
        iii. Break out mitigation into two types (Irrigation Season and Wintertime)
            1. Year-round mitigation – FWP
                a. Reach versus point dynamics may naturally lend some flexibility
        iv. Non-Diverted Volume Accounting
            1. Define types – return flow, carriage water, ditch seepage, on-field efficiency
            2. What could be done with this water?
                a. What is the future of return flow policy (permit/change processing question)?
                b. Credit seasonal ditch seepage as year-round mitigation?
                c. For water left instream for mitigation purpose, recognizing losing/gaining stream reach phenomena in the adverse affects analysis.
        v. Perfection/completion period for municipal permits
            1. Should a municipal permit be deemed perfected upon completion of the diversion works or when after customers show up?
2) Data Needs: To establish and manage of Zones of Mitigation Effectiveness
    a. Synthesize existing data into one model
        i. Consistent with statewide practices – models are used to determine amounts/effects
        ii. Additional Flexibility: Zones delineated for added flexibility in model
    b. Still a wish list for further data
3) Additional considerations for Statute/Policy Changes

Commented [BH1]: Need guidance/rules on municipal consumptive use as it applies to new permits. It is impractical if not impossible to constrain municipal consumption to a discrete set of consumptive sub-uses.

Commented [BH2]: This is a key question for the Gallatin where large quantities of water diverted from the West Gallatin return to the East Gallatin. This is particularly challenging when changing the consumed fraction to instream mitigation doesn't leave enough water in the ditch to overcome carriage loss in order to maintain East Gallatin return flows.

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a. Wastewater disposal methods – if needs to discharge wastewater in some manner for mitigation, timing & water quality concerns between MT DEQ/MT DNRC
b. Water use measurement and reporting
    i. A point from last meeting discussion: Only mitigate when measurements show water is not available for senior users, like Colorado?

Commented [BH3]: Water quality is governed by federal law under principles of cooperative federalism and state delegated authority. The WQA and WUA are directly at odds with each other. This is the elephant in the room.

Commented [BH4]: I don't see how a mitigation bank works when adverse affect is based on legal availability. Comprehensive streamflow monitoring and diversion reporting is essential to sync up the legal and physical availability analyses. Water is not legally available when it is not physically available. How senior does a WR have to be to mitigate for juniors that don't get water anyway? "Use it or lose it" is a major barrier within the prior appropriation system that promotes water waste at the expense of ecological health.